WHAT IS CLAIMED IS:

1. A composition, comprising:

a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms, and Ab is a moiety comprising an antigen-binding site and is linked to the C_n; and

a therapeutic molecule associated with the C_n-Ab, wherein the therapeutic molecule comprises a radioisotope (M).

2. The composition of claim 1, wherein the Ab is covalently linked to the C_n.

3. The composition of claim 1, wherein the C_n is substituted with one or more water-solubilizing groups.

4. The composition of claim 1, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

5. The composition of claim 1, further comprising a pharmaceutically-acceptable carrier.

6. The composition of claim 1, wherein the C_n is a nanotube fragment and the therapeutic molecule is associated by van der Waals interactions with the C_n.

7. The composition of claim 1, wherein the radioisotope is ^{125}I, ^{131}I, ^{90}Y, ^{221}At, ^{225}Ac, ^{212}Bi, ^{213}Bi, ^{99}Re, ^{166}Ho, ^{177}Lu, or ^{153}Sm.

8. The composition of claim 1, having the formula M@C_n-Ab.

9. A method of treating a disease in a mammal, comprising:

administering to the mammal an effective amount of a composition comprising (i) a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms and Ab is a moiety comprising an antigen-binding site and is linked to the C_n, (ii) a pharmaceutically-acceptable carrier, and (iii) a therapeutic molecule associated with the C_n-Ab, wherein the therapeutic molecule comprises a radioisotope.

10. The method of claim 9, wherein the Ab is covalently linked to the C_n.

11. The method of claim 9, the C_n is substituted with one or more water-solubilizing groups.

12. The method of claim 9, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

13. The method of claim 9, wherein the C_n is a nanotube fragment and the therapeutic molecule is associated by van der Waals interactions with the C_n.

14. The method of claim 9, wherein the radioisotope is ^{125}I, ^{131}I, ^{90}Y, ^{221}At, ^{225}Ac, ^{212}Bi, ^{213}Bi, ^{99}Re, ^{166}Ho, ^{177}Lu, or ^{153}Sm.

15. The method of claim 9, wherein the radioisotope (M), C_n, and Ab form a structure having the formula M@C_n-Ab.

16. The method of claim 9, wherein the disease is a cancer.

17. The method of claim 9, wherein the composition is administered at a dosage of from about 0.001 mg therapeutic molecule per kg body weight per day to about 1 g therapeutic molecule per kg body weight per day.